REAGENTS AND METHODS FOR ISOLATION OF PURIFIED RNA ABSTRACT

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Compositions and methods to isolate intact RNA that is substantially free of DNA, termed purified RNA. RNA from any source (e.g., human, other animals, plants, viruses, etc.) may be isolated. In one embodiment, the sample is treated with phenol at a pH less than 4.0 and purified RNA is recovered from the aqueous phase. In another embodiment, RNA is precipitated from an acidified sample containing a low volume of an organic solvent. Other embodiments are disclosed. The same inventive composition may be used for several embodiments with pH adjustment. Purified RNA obtained by the inventive method may be used in assays where DNA contamination is undesirable, such as the polymerase chain reaction.